

CERES Education and Outreach Update

Lin Chambers, NASA LaRC, Hampton, VA

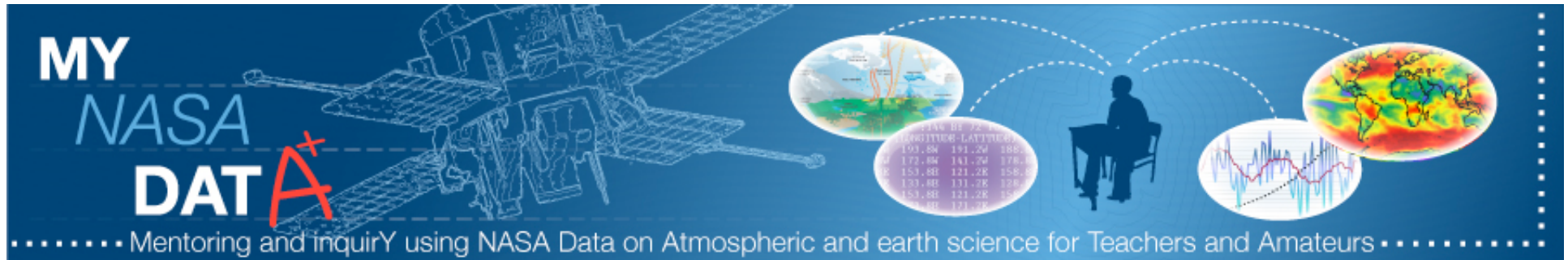
S'COOL Team:

Tina Rogerson (ASDC), **Sarah Crecelius**, Camelia Deller,
Preston Lewis, Susan Moore and Jay Madigan, SSAI

MY NASA DATA Team:

Preston Lewis, Susan Moore, Dan Oostra, Penny Oots, SSAI

What is MY NASA DATA?

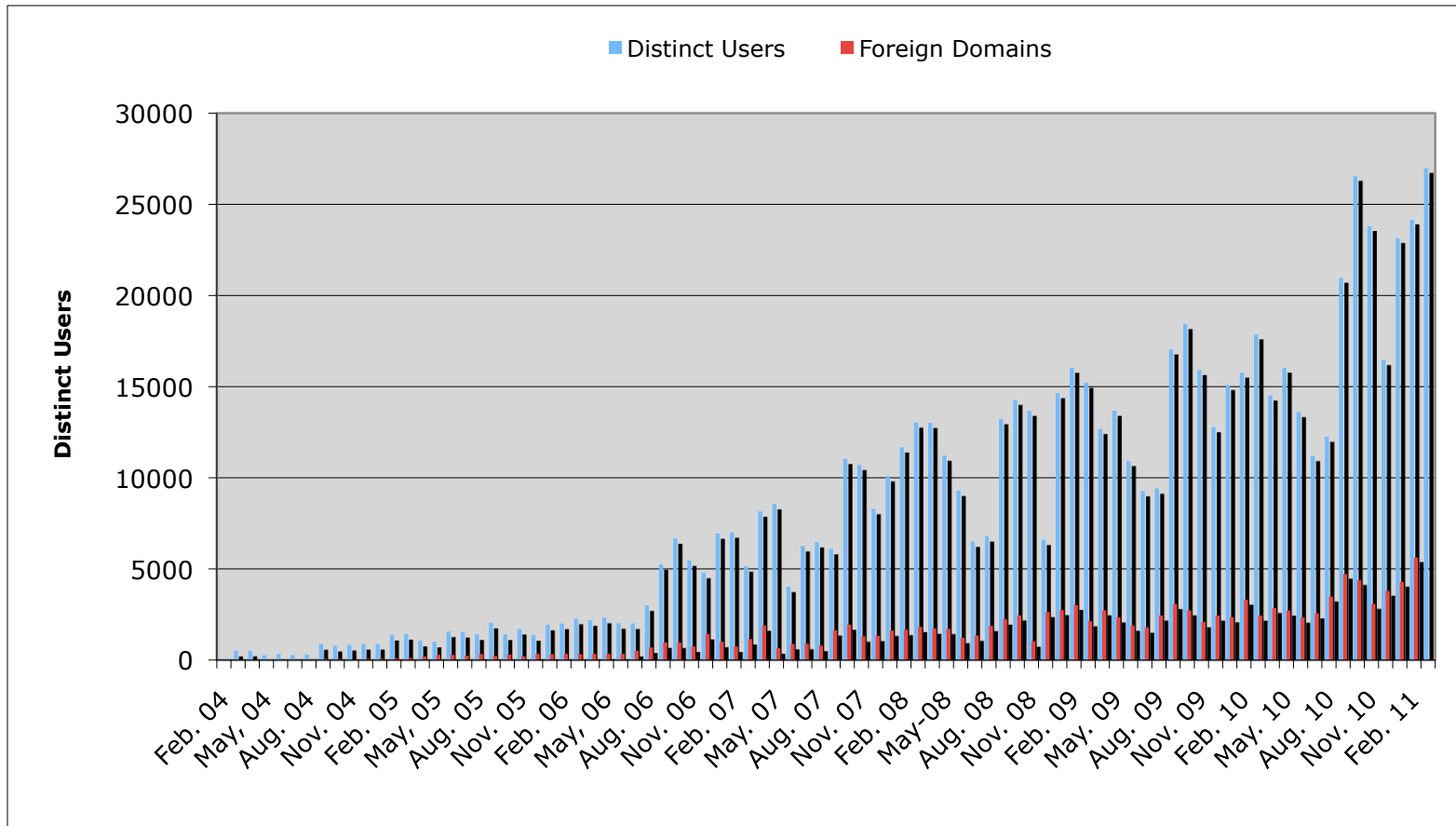


- Involve students in real science.
- Enable K-12 teachers and students, as well as citizen scientists, to explore the large volumes of data that NASA collects about the Earth from space.
- *Students use scientific inquiry and math skills as they access and display microsets of the Earth System.*

<http://mynasadata.larc.nasa.gov>

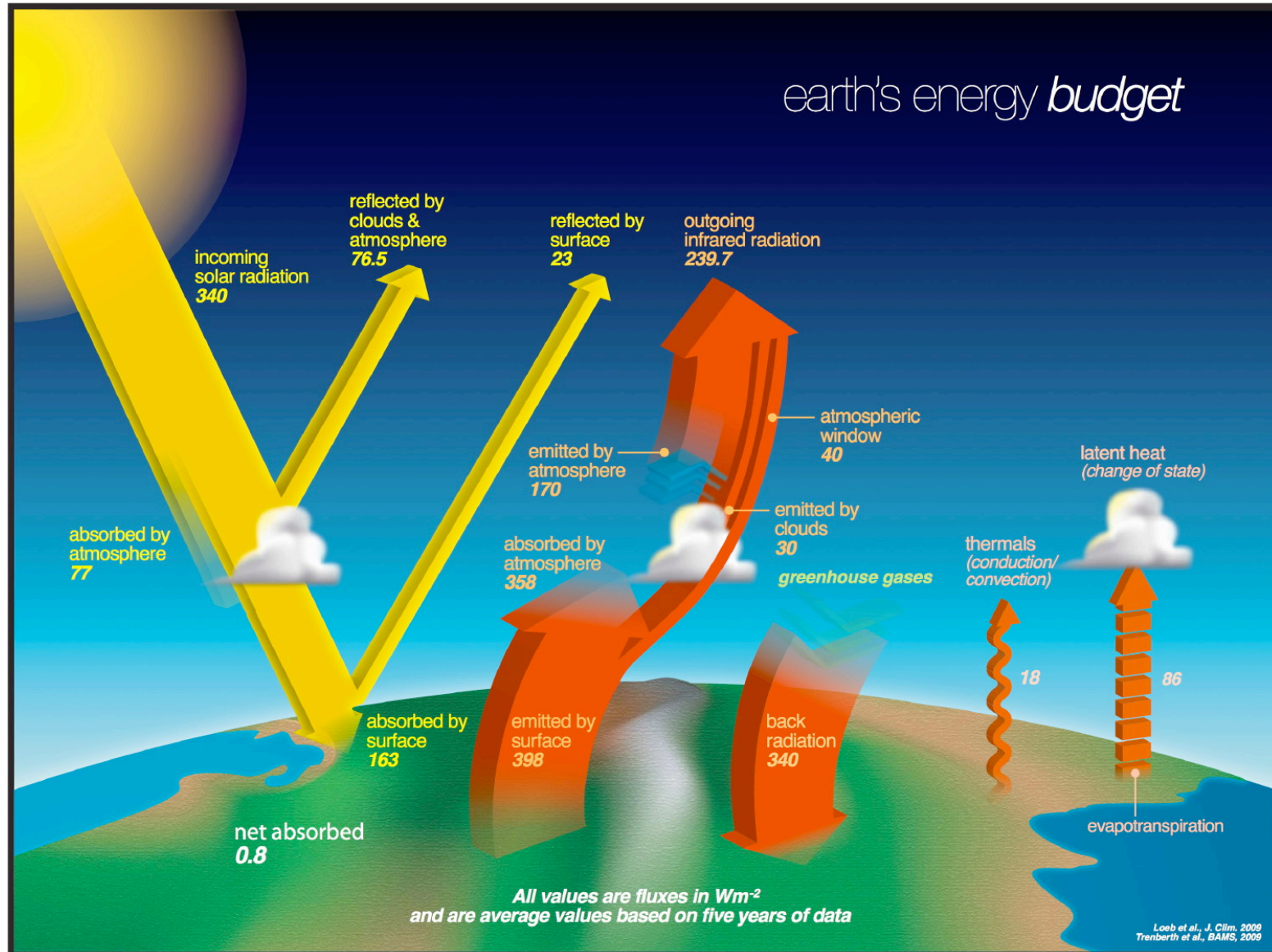
MY NASA DATA and CERES

- Project adopted by Aqua and Terra in latest Senior Review cycle
- Includes several CERES data parameters:
 - Albedo, Fluxes (EBAF & TRMM)
 - Surface Scene Type



Radiation Budget Resource

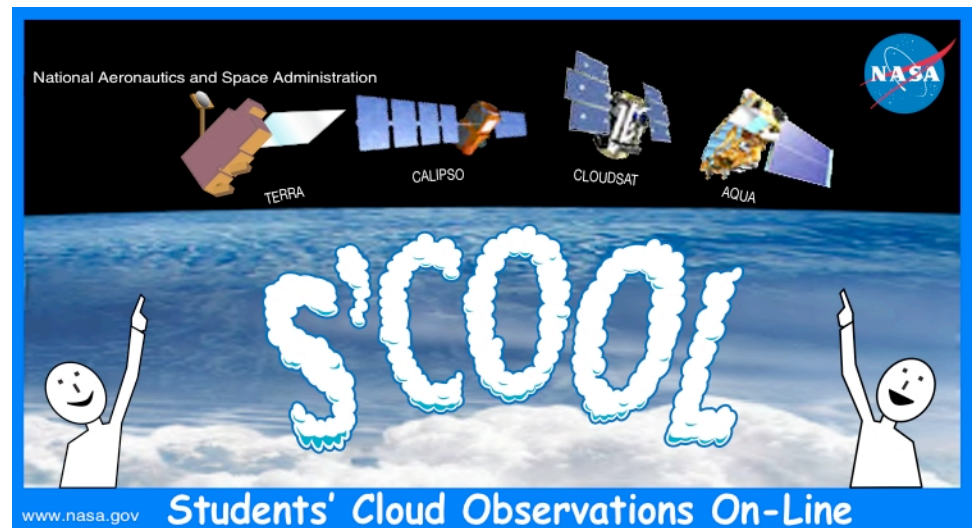
- http://science-edu.larc.nasa.gov/energy_budget/



What is S'COOL?

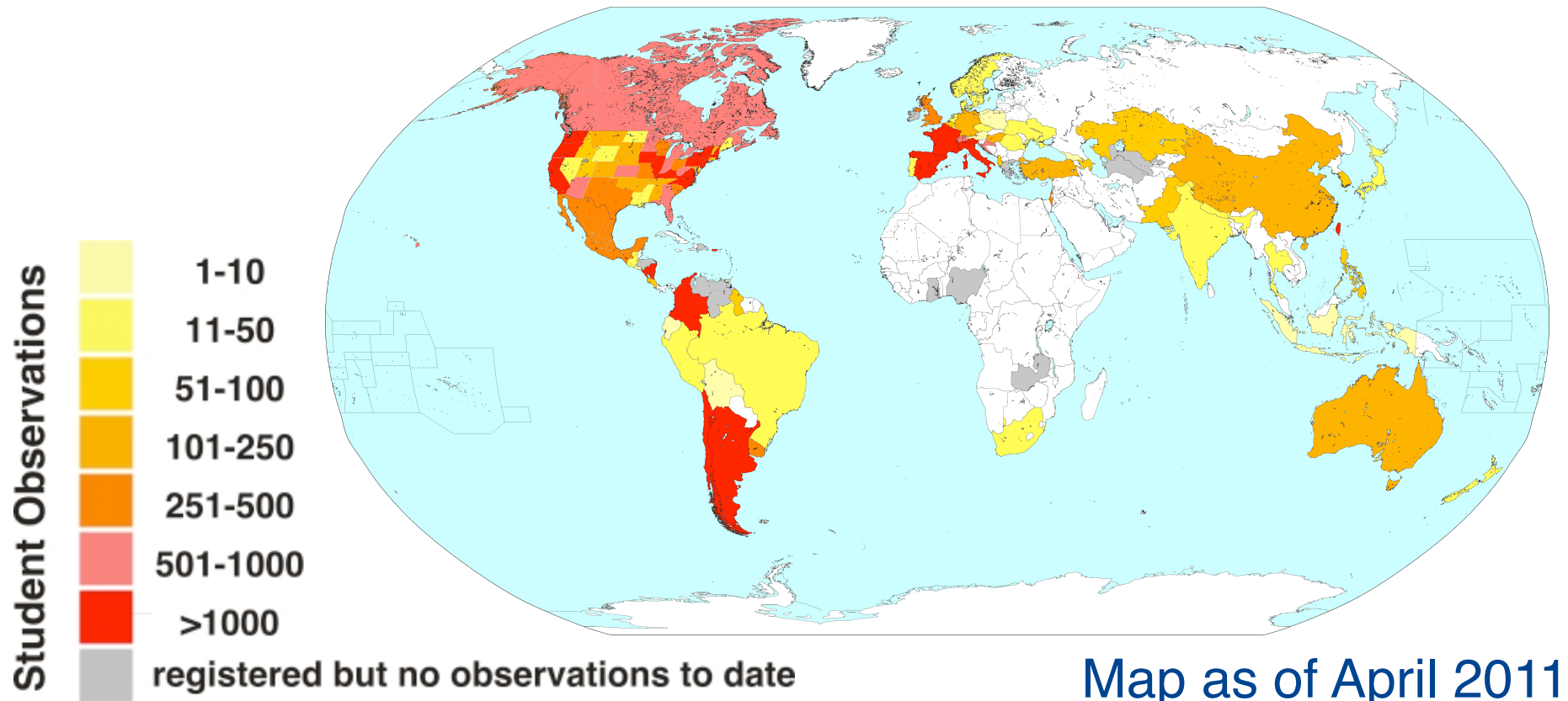
- Education and Public Outreach arm of CERES
- Backbone of Terra/Aqua formal education effort
- A simple way to involve K-12 students in authentic science
- A source of validation data for the CERES cloud retrievals

<http://scool.larc.nasa.gov>



S'COOL Project

- > 92,000 observations from 58 countries and all 50 states
- 50 % from outside the US (76% US participants)
- > 3,200 registered participants from 83 countries



Impact Measures

- ~60 requests for S'COOL materials since Apr. 2010 (2x average rate)

States "Top Five"

▪PA	23% ↑
▪VA	9%
▪PR	5% ↓
▪CA	5%
▪NH	5%

Countries "Top Five"

▪US	50% ↓
▪Colombia	21% ↑
▪Argentina	6%
▪France	5% ↓
▪Taiwan	4% ↑

States "Bottom Five"

▪North Dakota	14
▪DC	12
▪Virgin Islands	9
▪Guam	6
▪Northern Marianas	0

Bottom five
no change

Impact Measures (cont'd)

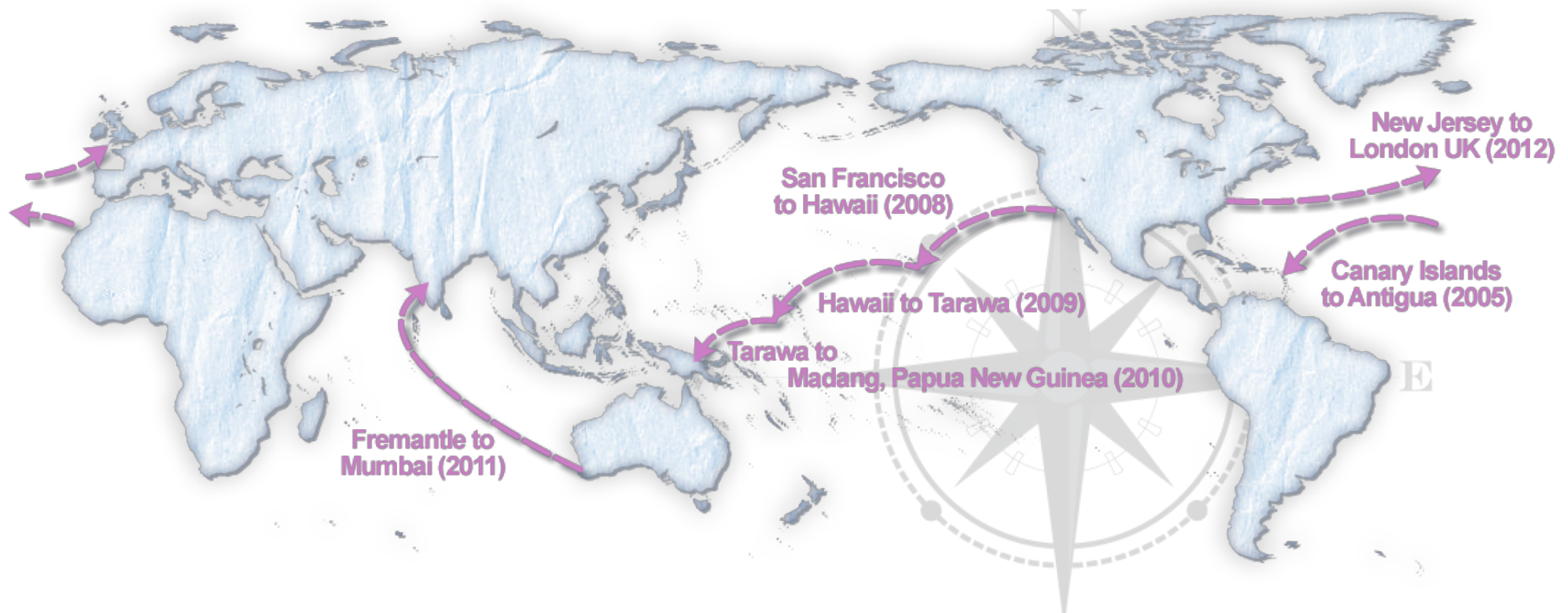
Database of observations - as of Apr. 18, 2011

- > 51,700 satellite correspondences (828 match both)
 - For 56% of ground observations
- >3,200 registered participants
 - 36% submitted data
- 83 countries
 - data from 58 countries (70%)

Now Using SSF Only



S'COOL Rover!



<http://www.rozsavage.com/>

S'COOL Ambassadors - I

Thanks to Jerry Potter, Patrick Taylor and Shi-Keng Yang for staffing a S'COOL-related exhibit at the AMS Annual Meeting in January 2011.

They report it was very busy, and all handouts were given away.



S'COOL Ambassadors - II

Nashville Regional NSTA conference:

Ambassadors Eileen Poling (WV) and Diana Soehl (NY) presented S'COOL and MND



NSTA National in San Francisco:

- S'COOL team co-presented concurrent session with CloudSat EPO;
- S'COOL's support of A-Train symposium was presented at the GLOBE US Partners meeting

NESTA share-a-thon

Ambassador-Missy Holzer (NJ) presented MND



A-TRAIN SYMPOSIUM

NEW ORLEANS  October 25-28, 2010

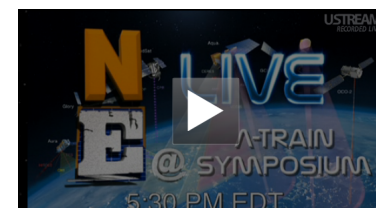
- 48 undergraduate/graduate students attended Symposium either supported by DEVELOP or the Symposium
- Three 1-day Teacher Workshops (72 teachers attended)
 - Introduction to Remote Sensing and use of satellite data
 - A-Train Share-a-Thon (Aqua, CALIPSO, CloudSat, Aura, Glory)



- Friday Oct. 29 visits by scientists to local schools
 - 14 scientists from GSFC, HQ, JPL, LaRC, univ.
 - 2 DEVELOP students
 - Visited 29 classrooms
 - More than 800 students impacted

- NASA EDGE Presence: Live Webcast + Dailies, with "Best of" to follow
 - Live show: 2 univ. scientists (incl. A-Train PI) and 2 DEVELOP students
 - Via U-Stream: 57 live views, 252 (and counting) archive views
 - Via Facebook: >4500 show views; >19,000 "impressions"

- GLOBE Student-Scientist Observation Campaign
 - Worked via GLOBE and S'COOL projects to motivate student observations around A-Train
 - Created A-Train Symposium Activity Blog
 - Aqua, CALIPSO, CloudSat, Aura scientists made 35 blog posts >80 users and >950 visitors to site, but minimal interaction occurred
- Public display in hotel lobby, anchored by Dynamic Planet



THE
GLOBE
PROGRAMME

Lin Chambers
Lin.H.Chambers@nasa.gov



Blog, Observe Your World!



- Hybrid of the **NASA CERES S'COOL** Project, the **MY NASA DATA** Project, and the **Science Directorate Outreach Efforts**.
- Innovative and creative way to appeal to the S'COOL, MND and SD existing communities, and attract a new audience.
- Efficiently provides users with information and resources from 7 main categories; Updates, SD Highlights, Meet the Team, Tips and Tricks, Top 5..., Events, and NASA Resources.

- Designed and maintained by a team of educators, communicators, and scientists at NASA Langley Research Center.

<http://mynasadata.larc.nasa.gov/oyw/>

Mobile Applications

- Empowerment, innovation and outreach
- The MY NASA DATA (MND) project has begun work on mobile application to suite individual classroom needs.
- Extension: Supply teachers and students with compatible MND data, free web 2.0 tools, guided tutorials, and Mobile Application team workshops to gain the knowledge needed to create apps specific to their needs.



S'COOL Visits

Trinity Lutheran School, Newport News, VA
One of the Top 25 S'COOL Observers for 2010



S'COOL Needs YOU!

- **Make S'COOL Rover observations!**
- **Participants in every state and >75 countries**
 - Offer to serve as a **resource to a local teacher**
 - Arrange a **S'COOL visit when traveling**
 - Provide **S'COOL info to teachers you know**
- **Presentation materials available**, with script suggestions
- **Help with translation of materials**
- **Serve as resource for scientific content questions sent in by participants**
- **Analyze some data!**